

What is claimed is:

1. A power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, comprising:

a u-shaped, circular seal body having an inner wall portion, an outer wall portion and a seat portion, wherein the seat portion is affixed to a lower end of the inner wall portion and a lower end of the outer wall portion;

an open channel portion being defined by an outer diameter surface of the inner wall portion, an inner diameter surface of the outer wall portion and a top surface of the seat portion;

a plurality of ribs, each of said ribs being mounted within said open channel portion, wherein each of said plurality of ribs is tangentially attached to the lower end of the outer diameter surface of the inner wall portion and the lower end of the inner diameter surface of the outer wall portion, and wherein a bottom surface of each of said ribs is diagonally attached to the top surface of the seat portion, such that an upper end of the inner wall portion and an upper end of the outer wall portion can selectively expand and selectively contract in relation to the forces being applied to said seal body;

an inner diameter composite dynamic seal, wherein said dynamic seal is structurally formed within an inner diameter wear surface of said inner wall portion; and

an outer diameter rubber static seal, wherein said static seal includes an outer diameter surface of the outer wall portion and a bottom surface of the seat portion.